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EXAMINER	
RAYYAN, SUSAN F	

ART UNIT	PAPER NUMBER
2177	5

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,433	BODE ET AL.	
	Examiner	Art Unit	
	Susan F. Rayyan	2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-89* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17,19 and 26-89* is/are rejected.

7)☒ Claim(s) *18 and 20-25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-89 are pending.

2. IDS filed on 2/2/04 (paper# 4) has been considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-17, 19, 26-89 are rejected under 35 U.S.C. 102(e) as being anticipated by Shapiro et al (US 2003/0014405 A1).**

As per claims 1,26,54 Shapiro anticipates:

(a) obtaining from a user a user query including at least some language at parg. 20, lines 5-7;

(b) performing a search for documents relevant to the user query using at least one search criteria at parg. 26;

(c) evaluating a first search result returned by the first search to determine whether to perform a subsequent search using different search criteria at parg. 32, fig. 1.

Shapiro teaches obtaining from a user a user query including at least some language, performing a search for documents relevant to the user query using at least one search criteria, evaluating a first search result returned by the first search to determine whether to perform a subsequent search using different search criteria at parg. 20, lines 5-7, parg. 32, fig. 1.

As per claim 2 same as claim arguments above and Shapiro anticipates: if a subsequent search is indicated by (c), modifying the search criteria and repeating (b) and (c) at fig.1, #135.

As per claim 3 same as claim arguments above and Shapiro anticipates: further including, if a subsequent search is indicated by (c), modifying the search criteria and repeating (b) and (c) unless a list of different searches has been exhausted at fig.1, #135 and parg. 28, lines 7-12.

As per claim 4 same as claim arguments above and Shapiro anticipates: further including: (d) returning a list of documents to the user at parg. 30, lines 1-2.

As per claim 5 same as claim arguments above and Shapiro anticipates: ranking documents and) returning a list of ranked documents to the user at parg. 30, lines 2-3.

As per claims 6, 56 same as claim arguments above and Shapiro anticipates: in which the ranking of a particular document is based at least in part on which performed search returned that particular document parg. 30, lines 3-12.

As per claims 7, 57 same as claim arguments above and Shapiro anticipates: in which the ranking of a particular document is based at least in part on a degree to which a particular document satisfied the search criteria associated with the particular performed search that returned that particular document at parg. 31.

As per claim 8 same as claim arguments above and Shapiro anticipates: in which the ranking of a particular document is based at least in part on a weight with which the particular document is associated with a particular concept node in one of multiple taxonomies at parg. 30.

As per claim 9 same as claim arguments above and Shapiro anticipates: further including determining a characteristic of the subsequent search based at least in part on the first search result at parg. 28, lines 7-12.

As per claim 10 same as claim arguments above and Shapiro anticipates: in which determining a characteristic of the subsequent search includes formulating more specific criteria than criteria of the first search at parg. 28, lines 7-12 19-21.

As per claims 11,14 same as claim arguments above and Shapiro anticipates: in which determining the characteristic of the subsequent search includes determining, based at least in part on the first search result, at least one of:

a criteria of the subsequent search within a dimension, a dimension of the subsequent search criteria, a search ordering of the subsequent search with respect to other subsequent searches having different criteria or dimensions, and a scheme in whîch the search ordering is traversed at parg. 28, lines 19-21.

As per claim 12 same as claim arguments above and Shapiro anticipates: in which the determining the scheme in which the search ordering is traversed includes using an approximately binary divide-and-conquer traversal of the search ordering at parg. 28, lines 24-29.

As per claim 13 same as claim arguments above and Shapiro anticipates: further including selecting a search strategy based at least in part on the user query at parg. 28, lines 25-28.

As per claim 15 same as claim arguments above and Shapiro anticipates: further including classifying the user query into a query class, and in which the selecting the search strategy is based on the query class in which the user query is classified at parg. 25, lines 4-12.

As per claim 16 same as claim arguments above and Shapiro anticipates: in which classifying the user query includes:
parsing the user query into information-bearing terms, based at least in part on any noninformation-bearing stopwords included in the user query and
classifying the user query into a query class based on at least one of:
how many information-bearing terms are obtained from the user-query, how many words are included in the information-bearing terms obtained from the user query at parg. 29.

As per claim 17 same as claim arguments above and Shapiro anticipates:

in which classifying the user query into a query class includes classifying the user query into query classes that include:

a first query class in which the user query includes a single information-bearing term a second query class in which the user query includes between two and three information-bearing terms, inclusive, a third query class in which the user query includes more than three information-bearing terms without any accompanying noninformation-bearing stopwords, and a fourth query class in which the user query includes more than three information-bearing terms and at least one noninfonnation-bearing stopword at parg. 25.

As per claim 19 same as claim arguments above and Shapiro anticipates:

in which at least one of the searches allows casing variations parg. 25, line 7-12.

As per claims 27,46 Shapiro anticipates:

obtaining from a user a user query including at least some language at parg. 20, lines 5-7;

using an ordered list of S 1, S2, . . ., SN searches, each search using at least 10 one criteria that is different from the other searches parg. 27;

performing a search for documents relevant to the user query using one of the S 1, S2, . . ., SN searches, starting with the SI search, evaluating search results corresponding to the search performed to determine whether to perform a subsequent search and, if the search results yielded an insufficient number of

15 documents relevant to the user query, moving to and performing another search in the list parg. 28;

returning a list of the documents returned by the at least one search that was performed parg. 30, lines 1-2.

Shapiro teaches obtaining from a user a user query including at least some language, using an ordered list of S 1, S2, . . ., SN searches, each search using at least 10 one criteria that is different from the other searches, performing a search for documents relevant to the user query using one of the S 1, S2, . . ., SN searches, starting with the Sl search, evaluating search results corresponding to the search performed to determine whether to perform a subsequent search and, if the search results yielded an insufficient number of 15 documents relevant to the user query, moving to and performing another search in the list, returning a list of the documents returned by the at least one search that was performed at parg. 20, lines 5-7, pargs. 27,28,30.

As per claim 28 same as claim arguments above and Shapiro anticipates: which the using the ordered list includes using a list ordered at least substantially according to specificity of the search criteria, in which S1 provides at least approximately more specific search criteria than S2, . . ., SN, and in which SN provides at least approximately more general search criteria than S1, S2, . . ., S(N-1) at parg. 28, lines 7-12 and pg. 25, lines 6-7.

As per claims 29,65 same as claim arguments above and Shapiro anticipates: in which S 1 provides more specific search criteria than S2, . . ., SN, and in which SN provides more general search criteria than S1,S2, ... S(N-1) at p. 28, lines 7-12.

As per claims 30,66 same as claim arguments above and Shapiro anticipates: in which the using the ordered list includes using a list ordered throughout according to specificity of the search criteria at parg. 28, lines 9-11.

As per claims 31,67 same as claim arguments above and Shapiro anticipates: in which the list is ordered dynamically based at least in part on a result obtained from a previously-executed search on the user query at parg. 28, lines 22-25.

As per claim 32 same as claim arguments above and Shapiro anticipates: in which the search criteria use the language from the user query at parg. 25, lines 1-4

As per claims 33,51,69 same as claim arguments above and Shapiro anticipates: in which the at least approximately more specific search criteria uses an at least approximately more exact matching of language from the user query to language in the documents, and the more general search criteria uses an at least approximately less exact matching of language from the user query to language in the documents at parg. 2-,lines 7-12 and parg. 25, lines 6-7.

As per claims 34, 68 same as claim arguments above and Shapiro anticipates: The method of claim 28, in which specificity of the search criteria varies along at least one of a textual dimension, a linguistic dimension, and a thesaurus dimension at parg. 25, lines 1-3.

As per claims 35,70 same as claim arguments above and Shapiro anticipates:

The method of claim 28, in which the search criteria uses at least one predefined portion of the documents at parg. 28, lines 6-7.

As per claim 36, 71 same as claim arguments above and Shapiro anticipates:

in which the at least approximately more specific search criteria uses a more specific portion of the documents, and the at least approximately more general search criteria uses a less specific portion of the documents at parg. 25, lines 27-29.

As per claims 37 , 72 same as claim arguments above and Shapiro anticipates:

in which the predefined portion of the documents uses at least one of a title portion, a summary portion, and an abstract portion at parg. 25, lines 27-28.

As per claims 38 same as claim arguments above and Shapiro anticipates:

further including, before the returning the list, ranking the documents at parg. 30, lines 1-3.

As per claims 39,48,74 same as claim arguments above and Shapiro anticipates:

in which the ranking of a particular document is based at least in part on which of the at least one performed searches returned that particular document at parg. 30, lines 3-12.

As per claims 40 , 49, 75 same as claim arguments above and Shapiro anticipates:

in which the ranking of a particular document is based at least in part on a degree to which a particular document satisfied the search criteria associated with the at least one performed searches that returned that particular document at parg. 30.

As per claims 41,76 same as claim arguments above and Shapiro anticipates:

in which the ranking of a particular document is based at least in part on a weight with which the particular document is associated with a particular concept node at parg.31, lines 1-5 .

As per claims 42,50,60,78 same as claim arguments above and Shapiro anticipates:

further including forming the ordered list based at least in part on the user query at parg. 31, lines 6-8.

As per claim 43, 79 same as claim arguments above and Shapiro anticipates: further including classifying the user query, and in which forming the ordered list based at least in part on the user query includes forming the ordered list based at least in part on the classification of the user query at parg.29.

As per claims 44,80 same as claim arguments above and Shapiro anticipates: further including adjusting the ordered list based at least in part on search results from a previous search on the obtained user query at parg. 32, lines 1-3.

As per claim 45,52,81 same as claim arguments above and Shapiro anticipates: in which the insufficient number of documents is determined by at least one of:
too few documents, too many documents, and the number of documents being outside a pre determined range at parg. 28, lines19-21.

As per claims 47,53,82 Shapiro anticipates:

obtaining from a user a user query including at least some language at parg. 20, lines 5-7;

using an ordered list of S 1, S2, . . ., SN searches, each search using at least one criteria that is different from the other searches, in which list is ordered substantially according to specificity of the search criteria, in which S1 provides at least approximately more specific search criteria than S2, . . ., SN, and in which SN provides at least approximately more general search criteria than S1, S2, . . ., S(N-1) at parg. 28, lines 7-12 and parg. 25, lines 6-7;

performing a search for documents relevant to the user query using one of the S1, S2, . . ., SN searches, starting with the S1 search, evaluating search results corresponding to the search performed to determine whether to perform a subsequent search and, if the search results yielded an insufficient number of documents relevant to the user query, moving to and performing another search in the list at parg. 28 ;

ranking the documents at parg. 28, lines 29-30;

returning a ranked list of the documents returned by the at least one search that was performed at parg. 30, lines 1-3.

Shapiro teaches obtaining from a user a user query including at least some language, using an ordered list of S 1, S2, . . ., SN searches, each search using at least one criteria that is different from the other searches, in which list is ordered substantially according to specificity of the search criteria, in which S1 provides at least approximately more specific search criteria than S2, . . ., SN, and in which SN

provides at least approximately more general search criteria than S1, S2, . . ., S(N-1performing a search for documents relevant to the user query using one of the S1, S2, . . ., SN searches, starting with the S1 search, evaluating search results corresponding to the search performed to determine whether to perform a subsequent search and, if the search results yielded an insufficient number of documents relevant to the user query, moving to and performing another search in the list, ranking the documents, and returning a ranked list of the documents returned by the at least one search that was performed at parg. 20, lines 5-7, parg. 25, lines 6-7, parg. 28, lines 7-12 and parg. 30, lines 1-3.

As per claims 55,73 same as claim arguments above and Shapiro anticipates: further including a result ranking engine, coupled to the search engine output to rank documents returned in at least one search result, the result ranking engine including an output user interface at parg. At parg. 30, lines 103.

As per claim 58 same as claim arguments above and Shapiro anticipates: further including a knowledge corpus including documents associated with concept nodes arranged in multiple taxonomies, and in which the result ranking engine ranks a particular document based at least in part on a weight with which the particular document is associated with a particular concept node at parg.30 .

As per claims 59,77 same as claim arguments above and Shapiro anticipates: in which the content provider includes an ordered list of searches executed by the search engine if indicated by the search result evaluator at parg. 28.

As per claim 61 same as claim arguments above and Shapiro anticipates: in which the search query generator classifies the user query and forms the ordered list based at least in part on the classification of the user query at parg. 25, lines 1-13.

As per claim 62 same as claim arguments above and Shapiro anticipates: in which search query generator modifies the ordered list based at least in part on a search result provided by the search engine at parg. 32.

As per claim 63 Shapiro anticipates:

a user query input to receive a user query at parg. 20, lines 5-7;

a search query generator, coupled to the user query input, the search query generator to generate an ordered list of S 1, S2, . . ., SN searches using the user query to formulate corresponding search criteria, each search including at least one criteria that is different from the other searches at parg. 27 ;

a search engine, including a input coupled to the search query generator and an output, the search engine using the search criteria to perform ones of the S1, S2, ..., SN searches, starting with the S1 search at parg.28, lines 7-12 ;

and to provide a corresponding search result at the search engine output at parg.30, lines 1-2;

a search result evaluator, coupled to the search engine output and an input of the search query generator, the search result evaluator to evaluate the search result to determine whether to perform a subsequent search from the ordered list based on whether existing search results yielded an insufficient number of documents relevant to the user query at parg.28.

Shapiro teaches a user query input to receive a user query a search query generator, coupled to the user query input, the search query generator to generate an ordered list of S 1, S2, . . ., SN searches using the user query to formulate corresponding search criteria, each search including at least one criteria that is different from the other searches ,a search engine, including a input coupled to the search query generator and 15 an output, the search engine using the search criteria to perform ones of the S1, S2, ..., SN searches, starting with the S1 search, and to provide a corresponding search result at the search engine output, a search result evaluator, coupled to the search engine output and an input of the search query generator, the search result evaluator to evaluate the search result to determine whether to perform a subsequent search from the ordered list based on whether existing search results yielded an insufficient number of documents relevant to the user query at parg. 20, lines 5-7, parg. 27, 28 and 30, lines 1-2.

As per claim 64 same as claim arguments above and Shapiro anticipates: in which the list is ordered at least substantially according to specificity of the search criteria, in which S1 provides at least approximately more specific search criteria than S2, . . ., SN, and in which SN provides at least approximately more general search criteria than Sl , S2, . . ., S(N-1) at parg. 28, lines 7-12 and parg. 25, lines 6-7.

As per claim 83 same as claim arguments above and Shapiro anticipates: in which the list is ordered according to a varying specificity along each particular dimension while holding specificity of other dimensions constant at parg. 25, lines 1-6.

As per claim 84 same as claim arguments above and Shapiro anticipates: in which each search in the ordered list includes a criteria from each dimension at parg. 25, lines 1-3.

As per claim 85 same as claim arguments above and Shapiro anticipates: in which moving to and performing another search in the list includes moving to and performing the next search in the list at parg. 28, lines 7-13.

As per claim 86 same as claim arguments above and Shapiro anticipates: in which moving to and performing another search in the list includes moving through the list in an at least approximately binary strategy that divides a portion of the list to be searched into two segments and selects a particular segment of the list based on an evaluation of the search results at parg. 28, lines 18-26.

As per claim 87 same as claim arguments above and Shapiro anticipates: in which the ordered list is one of a plurality of ordered search lists that are mapped to query classes, and further including evaluating the user query for classification into a particular one of the query classes and using an ordered search list corresponding to said particular one of the query classes at parg.25.

As per claim 88 same as claim arguments above and Shapiro anticipates: further including reclassifying the user query to a different one of the query classes if results of a performed search provide an indication for such a reclassification at parg.32.

As per claim 89 same as claim arguments above and Shapiro anticipates:

in which the ordered list is one of a plurality of ordered lists, and further including switching to a different one of the ordered lists if results of a performed search provide an indication for such a switching at parg.25, parg. 32.

Allowable Subject Matter

5. Claims 18, 20-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (703) 305-0311. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 703-305-9790. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for Official communications, (703) 746-7238 for After Final communications and (703) 746-7240 for Status inquires and draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Susan Rayyan

Susan Rayyan

Aug. 25, 2004

Alford Kindred